



CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005



Job No.: CTCE/BBMP/KRIDL/W.No.13/CSR-12/523/Bricks/2017-18

25.12.2017

TEST REPORT ON COMPRESSIVE STRENGTH OF BRICKS

* Customer	: Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: Technical Manager (West), KRIDL, Bangalore.
* Name of work	: Improvements UGD line in Ward No.13, Mallasandra, BBMP, Bangalore.
* Reference	: BBMP/EE/DD/WO/141/2017-18 Dated: 21.12.2017
* Sample ID	: Bricks
Technical Reference	: IS : 3495 (Part-1) - 1992 (RA-2011)
Sample Received on	: 21.12.2017
Date of Testing	: 25.12.2017



Sl.No.	Size of Bricks are in mm	Weight of Bricks in gms	Failure load in KN	Compressive Strength (N/mm ²)	Average Compressive Strength (N/mm ²)	Class Designation (As per IS: 1077:1995 Table 1)
1	220x100x75	3436.00	123.5	5.61	5.57	5.0
2	220x100x75	3429.00	120.3	5.47		
3	220x100x75	3463.00	121.2	5.51		
4	220x100x75	3490.00	124.5	5.66		
5	220x100x75	3486.00	123.2	5.60		

* Information is furnished by the Customer/Representative

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AE-13

ನಹಾಂಕ ಕಾಯ್ದಾಳೆ ಅಭಿಯಂತರರು
ತೆಳ್ಳುಪಟ್ಟು ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ಪಾಲಿಕೆ
ವ್ಯವಸ್ಥಾಪಕ ಮಹಾನಗರ ಪಾಲಿಕೆ
ರಸ್ತೆ, ರವಿವರನಗರ, ದೇವನಹಳ್ಳಿ
ಜಿಲ್ಲೆ, ಕರ್ನಾಟಕ ರಾಜ್ಯ



VIDYARANI P.K.
Technical Manager



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Job No.: CTCE/BBMP/KRIDL/W.No.13/GSWPipe/2017-18

25.12.2017

TEST REPORT ON GLAZED STONEWARE PIPE

* Customer	: Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: Technical Manager (West), KRIDL, Bangalore.
* Name of work	: Improvements UGD line in Ward No.13, Mallasandra, BBMP, Bangalore.
* Reference	: BBMP/EE/DD/WO/141/2017-18 Dated: 21.12.2017
* Sample ID	: Glazed Stoneware Pipe(230mm dia)SP-1 Class
Technical Reference	: IS-651:2007 (VI revision)
Date of Testing	: 25.12.2017



Sl no	Internal Diameter	Thickness of Pipe	% absorption	% of Acid Resistance	Crushing Strength kN/m
1	230mm	20mm	4.5	1.78	17.49
2	230mm	20mm	4.7	1.85	17.60
3	230mm	20mm	4.8	1.93	18.12
Requirements as per IS-651:2007(VI Revision)	-----	----	Maximum 6%	Not Exceed 2.5%	Minimum 16kN/m

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Civil-tech Consultants & Engineers
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Shakthi Ganapathinagar,
Basaveshwaranagar, Bangalore-560 079.

ನಕಾಯಕೆ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶಿಬ್ಬಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು



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Job No.: CTCE/BBMP/KRIDL/W.No.13/WBM/Gradation-III/2017-18

05.01.2018

THE TEST REPORT ON GRADATION OF WATER BOUND MACADAM

* Customer	: Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: Technical Manager (West), KRIDL, Bangalore.
* Name of Work	: Improvements UGD line in Ward No.13, Mallasandra, BBMP, Bangalore.
* Reference	: BBMP/EE/DD/WO/141/2017-18 Dated: 21.12.2017
* Sample ID	: Water Bound Macadam (Grading-III)
Technical Reference	: MORTH table 400-7
Date of Testing	: 05.01.2018



Oven Dry Wt (gm): 5000

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specific limits as per MORTH table 400-7
63	0	0	0	100	100
53	145	145	2.9	97.1	95-100
45	1625	1770	35.40	64.60	65-90
22.4	2825	4595	91.90	8.10	0-10
11.2	305	4900	98.00	2.00	0-5

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Job No.: CTCE/BBMP/KRIDL/W.No.13/WBM-III/AIV/2017-18

05.01.2018

TEST REPORT ON IMPACT VALUE OF AGGREGATE

* Customer	: Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: Technical Manager (West), KRIDL, Bangalore.
* Name of Work	: Improvements UGD line in Ward No.13, Mallasandra, BBMP, Bangalore.
* Reference	: BBMP/EE/DD/WW/141/2017-18 Dated: 21.12.2017
* Sample ID	: Water Bound Macadam (Grading-III)
Technical Reference	: IS : 2386 (Part-4)-1963 (RA-2011)
Date of Testing	: 05.01.2018



Sl No.	Details	Trial No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	386	388	21.83
2	Weight of aggregate passing 2.36 mm sieve after the test = W_2 g	84	85	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	302	303	
4	Aggregate Impact value = percent fines $100 * (W_2/W_1) \%$	21.76	21.91	

*Information is furnished by the Customer/Representative.

Comments:

→ Maximum allowable Aggregate Impact value for Water Bound Macadam is 30%

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Job No.: CTCE/BBMP/KRIDL/W.No.13/WBM-III/Shape.T/2017-18

05.01.2018

TEST REPORT ON FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

* Customer	: Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: Technical Manager (West), KRIDL, Bangalore.
* Name of Work	: Improvements UGD line in Ward No.13, Mallasandra, BBMP, Bangalore.
* Reference	: BBMP/EE/DD/WO/141/2017-18 Dated: 21.12.2017
* Sample ID	: Water Bound Macadam (Grading-III)
Technical Reference	: IS 2386(Part 1) 1963 (RA 2011)
Date of Testing	: 05.01.2018



Sl.No.	Description	Result
1	Flakiness Index	11.23%
2	Elongation Index	13.20%
3	Combined Flakiness & Elongation Index	24.43%

*Information is furnished by the Customer/Representative.

Comments:

→ Maximum allowable Flakiness & Elongation Index for Water Bound Macadam is 30%

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